AMENDMENTS TO THE CLAIMS

1-11. (Cancelled)

12. (Currently Amended) An ultrasound diagnostic instrument comprising:

a) a handheld module including a display, manual controls, and system circuitry for processing signals for display;

b) a transducer assembly coupled to the system circuitry for providing electrical signals from ultrasound waves for processing; and

c) an electrocardiograph (ECG) module coupled to the handheld module by a cable and including leads for receiving ECG signals from a patient and ECG signal processing circuitry for applying ECG signals to the handheld module through the cable;

wherein said handheld module further comprises circuitry for performing spectral Doppler analysis and allowing for simultaneous ECG readings to be overlaid on a spectral Doppler display.

13. (Original) The ultrasound diagnostic instrument as defined by claim 12, wherein the ECG module receives control and power signals from the handheld module.

14. (Currently Amended) The ultrasound diagnostic instrument as defined by claim 12, wherein the signal processing circuitry of the ECG module includes first amplification and filtering circuitry for signals from the leads and second amplification and filtering circuitry for processing signals from the first amplification and filtering circuitry for application to the handheld module, the first and second amplification and filtering ~~circuity~~ circuitry being electrically isolated whereby a patient is electrically isolated from the handheld unit.

15. (Original) The ultrasound diagnostic instrument as defined by claim 14, wherein the first amplification and filtering circuit receives electrical power from the handheld module, the electrical power being capacitively coupled to the first amplification and filtering circuitry.

16. (Original) The ultrasound diagnostic instrument of claim 15, wherein the transducer assembly is coupled to the system circuitry through a cable.

17. (Original) The ultrasound diagnostic instrument as defined by claim 15, wherein the transducer assembly is integral with the handheld module.

18. (Original) The ultrasound diagnostic instrument as defined by claim 12, wherein the signal processing circuitry of the ECG module includes first amplification and filtering circuitry for signals from the leads and second amplification and filtering circuitry for processing signals from the first amplification and filtering circuitry for application to the handheld module, the first and second amplification and filtering circuitry being optically coupled.

19. (Currently Amended) The ultrasound instrument as defined by claim [[18]]14, wherein the first and second amplification and filtering circuitry are ~~being~~ magnetically coupled.

20. (Currently Amended) The ultrasound instrument as defined by claim [[18]]14, wherein the first and second amplification and filtering circuitry are ~~being~~ capacitively coupled.

21. (Original) The ultrasound diagnostic instrument as defined by claim 12, wherein the transducer assembly is coupled to the system circuitry through a cable.

22. (Original) The ultrasound diagnostic instrument as defined by claim 12, wherein the transducer assembly is integral with the handheld module.

23-36. (Cancelled)

37. (Currently Amended) A ~~lightweight, handheld~~ system for performing electrocardiography comprising:

a ~~handheld~~ portable ultrasound device ~~weighing less than seven pounds~~ having a transducer, a beamformer, an image processor and one or more digital signal processors for signal filtering, detection and mapping; [[and]]

a portable electrocardiogram monitor ~~weighing less than three pounds~~ and having at least three electrical leads for measuring electrical potential across a person's chest, a differential amplifier for amplifying the measured electrical potential, a plurality of signal filters and gain amplifiers, and a means for electronically isolating the measured signal from other electrical inputs and interferences; and

a portable display module for simultaneously displaying an image from said ultrasound device and signals from said electrocardiogram monitor.

38-75. (Cancelled)

76. (New) The system of claim 37, wherein the electrocardiogram monitor receives control and power signals from the ultrasound device.

77. (New) The system of claim 37, wherein signal processing circuitry of the electrocardiogram monitor includes first amplification and filtering circuitry for signals from the leads and second amplification and filtering circuitry for processing signals from the first amplification and filtering circuitry for application to the ultrasound device, the first and second amplification and filtering circuitry being electrically isolated whereby a patient is electrically isolated from the ultrasound device.

78. (New) The system of claim 77, wherein the first and second amplification and filtering circuitry are optically coupled.

79. (New) The system of claim 77, wherein the first and second amplification and filtering circuitry are magnetically coupled.

80. (New) The ultrasound instrument as defined by claim 77, wherein the first and second amplification and filtering circuitry are capacitively coupled.